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ABSTRACT

Summarized in this report are the efforts, accomplishments, and recommendations of personnel involved in a pilot program designed to teach educable mentally retarded (EMR) students key punch operation. Participating in the study initially were 18 high school students from Platt and Maloney High Schools. Instruction was given to each group by a teacher from IBM on an individualized basis for a total of 3 days per week with training time varying from 6 hours training per week for Platt students to 2 hours for Maloney students. Findings revealed that EMR students, if taught on an individualized basis are capable of learning key punch operation with a level of proficiency suitable for job placement. (SN)

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A DEMONSTRATION PROGRAM TO TRAIN 12-15 HIGH SCHOOL EMR STUDENTS IN KEY PUNCH OPERATION USING INDIVIDUAL INSTRUCTION

FINAL REPORT

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CONNECTICUT STATE DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION
RESEARCH AND PLANNING UNIT
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Summary of Project

In the work-study program presently operating for high school E.M.R. children, training has been offered on such office machinery as the laminator, typewriter, and collator. Although the students have met with great success on these machines, we have found that it has been almost impossible for them to attain a degree of speed that allows them to compete with normal children. Immediate job placement has, therefore, been most difficult.

From the work they have been able to accomplish on these office machines, particularly the typewriter, it was felt that they could also be trained in key punch operation provided the instruction could be handled in small groups over a longer period of time. Experience has also shown that there is a carry-over from the operation of the typewriter to that of the key punch machine.

Although we already have key punch machines within our regular business and office education program, it is impossible to make use of them with E.M.R. children to provide the individualized instruction which we felt was necessary. It was felt that integration in this instance would have a negative effect on these children.

The intent of our program was to train 12 to 15 of these students on an individualized basis under the guidance of a trained key punch instructor by utilizing the machines when they were not in use by regular classes and securing an extra machine which could be used exclusively by these students at all times.

Within the relatively short period of operation we found it definitely possible to teach some of these students key punch operation. Many were able to attain a level of accuracy and speed suitable for employment. With additional practice, it was felt by the instructor that the great majority could reach this level.

A. 4. Preface

The pilot program involving the EMR students with the key punch program has excited many people and has shown those involved with the students and machines that the program is potentially valuable.

Individuals who made significant contributions to the project were: Mr. Zaleski, Mrs. MacLean, Mrs. Nyiri, Mr. Reiske, Mr. Tiven, and Mr. Iovanna.

B. 1. Background or Setting

A pilot program to train 12 to 15 EMR students at Platt and Maloney High Schools in key punch operation on an individualized basis was instituted in March of 1972.

Conditions

There were a number of EMR students at Platt and Maloney who were capable of acquiring success in the skills required, in the opinion of the special education work-study teacher, for the operation of key punch machines. However, there were no specialized teachers available in the schools and it was felt that teachers were needed to instruct key punch operation on an individual basis using machines that were not being used at the time by regular classes.

Setting

The program was initiated with a separate room set aside with the needed furniture and one 026 key punch machine at Platt. At Maloney, the EMR students received instruction in the regular key punch classroom, using the three available 026 key punch machines during the time when they were not in use by the regular students.

An instructor from IBM and a special teacher's aide conducted individualized instruction for a total of five days a week, rotating three days at one school and two days at the other, and then reversing the procedure.

Needs

A "normal" student receiving key punch instruction can attain adequate proficiency largely by means of group instruction. This approach is not satisfactory for the retarded student, however. It was felt that if the EMR student were taught this skill on an individual basis, at his own speed, he would be able to attain adequate enough speed and accuracy on the machine, for eventual job placement.

There are many job opportunities for key punch operators where accuracy is the only consideration. We feel that under this type of program, our students can help themselves while also helping fill the void in the labor market.

B. 1. (Continued)

Objective to be Achieved

To train 12 to 15 high school EMR work-study students in the operation of the key punch machine to a level of proficiency that is suitable for eventual job placement.

Scope

In all actuality, the program beginning was delayed for a few weeks because of the non-availability of the key punch machines. The project was started in the third week of March, 1972, and ran through the second week of June. It included both high schools. It involved a total of four 026 key punch machines, a key punch consultant and a teacher's aide, two rooms, and eighteen EMR students, ranging in grade from freshmen to seniors.

B. 2. Methods and Procedures

The key punch consultant taught the students individually for three days each week. The teacher's aide (a certified teacher) taught the students for two days each week. This offered a total of five days of instruction in Meriden. The special education teacher at each high school arranged the scheduling of his students to receive key punch instruction. At Maloney, the regular key punch instruction room was made available to the EMR students when the regular classes were not scheduled. With three machines available during the three periods a day when the classroom was not in use, the seven Maloney students involved received at least six hours of individualized instruction per week. At Platt, one room was made available with needed furniture and one key punch machine (026). With eleven students initially being involved in the program, with one machine, participants from Platt were able to receive two hours a week of individualized instruction. The regular key punch room was in use by regular students or other school projects, denying the use of that room with its three machines to the EMR students.

The consultant and aide started the students by introducing them to the key punch keyboard. In a few lessons, the students mastered this aspect of instruction. Then, the students were taught to copy from instructional booklets which are exactly the same as those used by industry to train their key punch operators. The students were allowed to proceed at their own speed, after each card was checked for accuracy. Most of the students involved were able to reach those lessons on the preparation of payrolls.

At Maloney, the students consisted of two boys and five girls. These were broken down into two seniors, one junior, one sophomore, and three freshmen.

At Platt, there were two boys and nine girls. The class breakdown was seven sophomores and four freshmen.

B. 2. (Continued)

The program proved that the EMR students were able to absorb key punch instruction if it were given on an individual basis. Obviously, more instruction could be carried out if more than one machine were made available each teaching hour.

B. 3. Findings and Analysis

Although the number of hours each student received instruction in the key punch program was limited, it introduced the student to a new opportunity which was never before available. The fact that most of the students who remained in the program were able to successfully reach the plateau of "Preparation of Payroll" is proof of the potential success of the venture. Not all of the students who began the instruction remained in the program. Some removed themselves because they had no desire to continue. Others were removed by the consultant or the aide because they could not accomplish the minimum essentials necessary to go on to the next lesson.

At Maloney, the following are the accomplishments of the students:

Gary	soph	30 minutes	35 cards
Diane	sen	30 minutes	25 to 30 cards
Andrea	sen	30 minutes	25 cards
Lillian	jun	30 minutes	15 to 20 cards
Kim	fr	30 minutes	24 cards
Donna	fr	30 minutes	15 to 20 cards
Robert	fr	30 minutes	15 to 20 cards

At Platt, the following are the accomplishments of the students:

Lauren	soph	30 minutes	15 cards
Peggy	fr	30 minutes	14 to 16 cards
Mary	soph	30 minutes	14 to 16 cards
Linda	fr	not timed	learning program card-just starting payroll
Sharon	soph	not timed	had 2 hours a week at most
Miriam	fr	not timed	had 1 hour a week
Debbie	soph	not timed	continually absent from school most potential
Evelyn	soph	not timed	not interested enough
Charles	soph	not timed	not interested enough
Dora	fr	not timed	no interest-could have developed skill
Norman	soph	not timed	no interest in this type of work

As the program neared conclusion, a visiting day was held to which representatives from area businesses and institutions were invited, including Insilco, S.N.E.T. Co., Cuno Corporation, Chamber of Commerce, Yale University, IBM, and the Meriden-Wallingford Hospital. The program was explained at that time and six participants were available to give a demonstration of their proficiency.

The program was well attended, and all felt that the students' proficiency on the key punch was more than adequate for placement.

B. 3. (Continued)

There is a strong possibility that Yale will contribute eight 027 machines which have become obsolete for their purposes, to the school system in order to continue and expand the program. If this is accomplished, IBM is investigating the possibility of contributing the cost of maintenance of the machines.

B. 4. Conclusion

The EMR students who have the desire to seek employment in business, can definitely be taught key punching. However, as with any vocational skill, a considerable amount of practice is needed to acquire the degree of skill necessary to meet the qualifications set by area businesses.

If these students are given the opportunity to continue in this program, they will be able to meet the requirements and thereby gain employment in this field.

B. 5. Recommendations

Below are listed several suggested program modifications as a result of this year's experience:

1. If possible, the students should be exposed to typewriting for the purpose of learning the keyboard, as the card punch machine being taught has a combination alphabetic and numeric keyboard. (The letters on the card punch keyboard are arranged the same as on the typewriter keyboard.)

   The above may be accomplished by allowing these students to attend the Type I classes (Personal Type if this course is offered), and the teacher in charge being aware that they are there to learn keyboard only. Upon completion of this learning experience, they could be removed from the type class.

2. A certain amount of time every school day should be alloted to key punching so that there is continuous progress. A skill cannot be developed successfully if a student is to practice only a few times a week.

3. The number of machines available should dictate the number of students per period. In most cases, interest diminishes if a student is assigned to a typewriter with tandum. The tandum fails to give the student the same learning techniques as the card punch machine and hinders his progress.

4. Following a few weeks of key punch instruction, the students should be individually shown the importance of their function as potential accurate key punch operators. For instance, allow the student to see the absentee list being prepared at the school. He can see where the punched cards are put into the accounting machine, sorter, etc. I believe this would help to retain their enthusiasm and enhance their knowledge of data processing.

APPENDIX

1. Letter from Yale University

2. Invitation letters to visiting day

Yale University *New Haven, Connecticut*

ADMINISTRATIVE DATA SYSTEMS
3 April 1972

Mr. Reve S. Carberry
Marketing Representative
IBM Corporation
2200 Whitney Avenue
Hamden, Connecticut

Dear Reve,

Attached is a copy of a grant request to support a program for training retarded children in the use of IBM keypunch equipment to a level of proficiency suitable for job placement. I am personally quite interested in this project, and I am actively soliciting assistance from others who may have an interest. I have discussed the project with Grey Freeman on behalf of Laurence Tiven, the Project Director, and I believe the Yale Computer Center may be able to make several of their older purchased keypunch machines available for the project when they are replaced later this year.

I would greatly appreciate any assistance, direct or indirect, which you or your office might be willing to contribute, especially in the area of hardware maintenance. If you feel your office could contribute with maintenance assistance or in any other way, I would appreciate hearing from you at your earliest convenience.

Sincerely,

Bernard J. Hayden
Director

BJH:mac

Encl.

cc: G. C. Freeman
L. B. Tiven

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CITY HALL
MERIDEN, CONNECTICUT
TELEPHONE 238-2611

Confirming your earlier conversation with Mr. Scavetta, we would like to extend the invitation to observe our program to train high school students of limited ability in key punch operation.

The observation period will be held on Tuesday, May 30th, at 10:00 a.m., at Maloney High School.

Thank you for your cooperation. I am looking forward to meeting you at that time.

Very truly yours,

Laurence B. Tiven
Director
State and Federal Projects

LBT:d

G. William Malerba	Malerba Silver City Tire 155 Colony Street Meriden
Joseph F. Coffey	287 Coe Avenue Meriden
George Mayhew	General Electric Company 1 Prestige Drive Meriden
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